

Arizona State Retirement System

Investment Committee

Investment Program Updates

June 23, 2014

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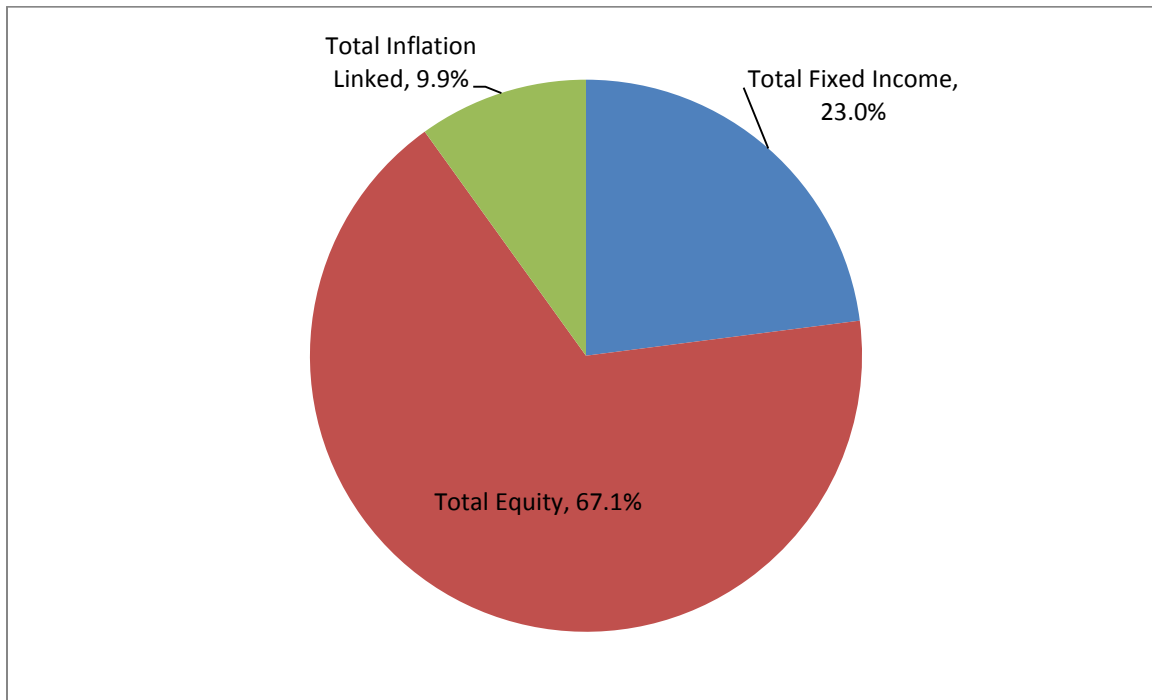


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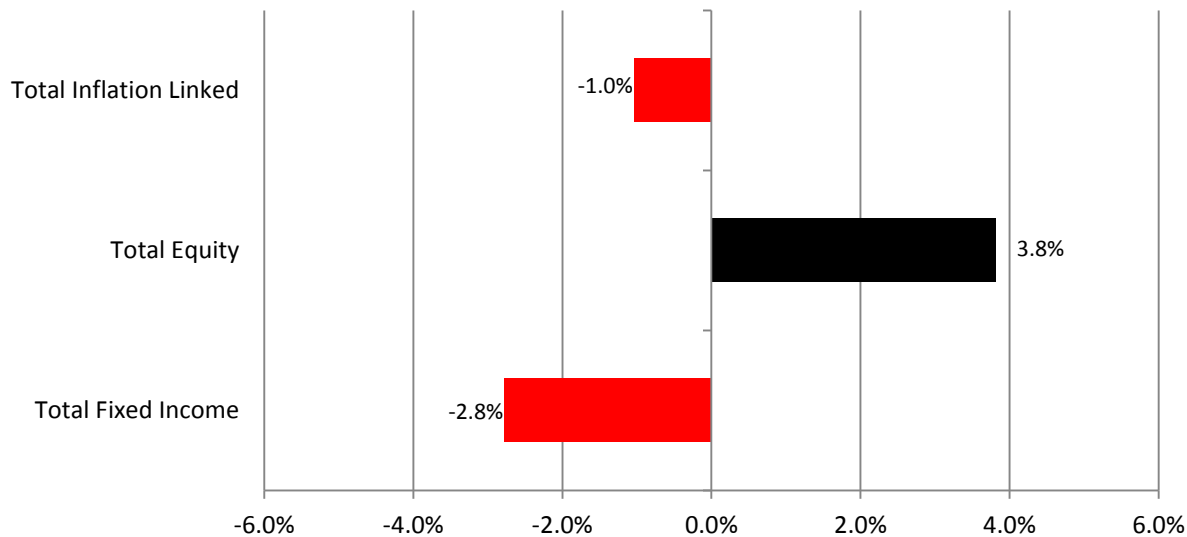
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TOTAL FUND POSITIONING – 5/31/14

ACTUAL PORTFOLIO



ACTUAL PORTFOLIO (ASSUMED GTAA ALLOCATION VS. ADJUSTED SAA POLICY *)



**Real Estate and Private Equity actual weight is equal to policy weight during the implementation of the asset class.*

**Over/Underweights include both GTAA positions as well as IMD tactical considerations.*

Note: Opportunistic & Private Debt, Opportunistic Private Equity, Farmland & Timber, Real Estate and Private Equity market values are reported on a quarter-lag and adjusted to include the current quarter's cash flows. Within the Assumed GTAA Allocation vs. Adjusted SAA Policy chart, Real Estate was prorated to domestic equity, international equity and fixed income. Private Equity was prorated to domestic equity.

Pension (Plan, System, HBS Assets)		ASRS Market Value Report				As of:		Friday, May 30, 2014	
Account Manager	Account Manager Style	Fixed Income		Equity		Inflation Linked		Total	Pct of Fund
		Active	Enh/Passive	Active	Enh/Passive	Active	Enh/Passive		
State Street B&T: Boston	Master Cash & Pension Acct.		162,815,927					162,815,927	0.48%
	Cash Total							\$162,815,927	0.48%
GTAA Managers (2)	Active GTAA	1,108,500,300						1,108,500,300	3.27%
Blackrock: San Francisco	Passive (Intermediate Gov Credit)		23,896,767					23,896,767	0.07%
ASRS: Phoenix	Enhanced Passive F2		1,977,765,294					1,977,765,294	5.83%
Blackrock: San Francisco	Passive (US Debt Index)		711,390,076					711,390,076	2.10%
	Core Fixed Income Total							\$3,821,754,993	11.27%
	Core Fixed Income Policy							13.00%	
Columbia: Minneapolis	Active	743,420,187						743,420,187	2.19%
Shenckman: Connecticut	Active	74,409,938						74,409,938	0.22%
JP Morgan: Indianapolis	Active	328,122,039						328,122,039	0.97%
	High Yield Fixed Income Total							\$1,145,952,165	3.38%
	High Yield Fixed Income Policy							5.00%	
	US Fixed Income Total							\$4,967,707,158	14.64%
	US Fixed Income Policy Range: 8% - 28%							18.00%	
PIMCO (local): Newport Beach	Active	348,494,510						348,494,510	1.03%
Ashmore (blended): London	Active	562,226,722						562,226,722	1.66%
	EM Debt Total							\$910,721,232	2.68%
	EM Debt Policy							4.00%	
	Opportunistic Debt							\$849,822,562	2.50%
	Opportunistic Debt Policy Range: 0% - 10%							0.00%	
	Private Debt Total							\$902,116,163	2.66%
	Private Debt Policy							3.00%	
	Fixed Income Total							\$7,793,183,042	22.97%
	Total Fixed Income Policy Range: 15% - 35%							25.00%	
Intech: FL	Active (Growth)			524,568,291				524,568,291	1.55%
LSV: Chicago	Active (Value)			786,316,797				786,316,797	2.32%
GTAA Managers (2)	Active GTAA			1,114,746,317				1,114,746,317	3.29%
ASRS: Phoenix	Passive E2				4,912,588,329			4,912,588,329	14.48%
ASRS: Phoenix	Enhanced Passive E7				791,134,515			791,134,515	2.33%
ASRS: Phoenix	Enhanced Passive E8				509,472,720			509,472,720	1.50%
ASRS: Phoenix	Risk Factor Portfolio				500,629,963			500,629,963	1.48%
	Large Cap Equity Total							\$9,139,470,159	26.94%
	Large Cap Policy							23.00%	
Wellington: Boston	Active (Core)			418,089,739				418,089,739	1.23%
CRM: New York	Active (Value)			99,100,622				99,100,622	0.29%
ASRS: Phoenix	Passive E3 (Growth)				509,238,459			509,238,459	1.50%
ASRS: Phoenix	Passive E4 (Value)				526,180,615			526,180,615	1.55%
	Mid Cap Equity Total							\$1,552,609,435	4.58%
	Mid Cap Policy							5.00%	
TimesSquare: New York	Active SMID (Growth)			461,772,531				461,772,531	1.36%
DFA: Santa Monica	Active (Value)			409,312,119				409,312,119	1.21%
Champlain: Vermont	Active (Core)			97,507,711				97,507,711	0.29%
ASRS: Phoenix	Passive E6				483,750,075			483,750,075	1.43%
	Small Cap Equity Total							\$1,452,342,436	4.28%
	Small Cap Policy							5.00%	
	U.S. Equity Total							\$12,144,422,031	35.80%
	US Equity Policy Range: 26% - 38%							33.00%	
Brandes: San Diego	Active (Value)			549,067,070				549,067,070	1.62%
Aberdeen: Edinburgh	Active (Value)			518,997,351				518,997,351	1.53%
Hansberger: Ft. Lauderdale	Active (Growth)			345,286,274				345,286,274	1.02%
Walter Scott: Edinburgh	Active (Growth)			238,486,640				238,486,640	0.70%
GTAA Managers (2)	Active GTAA			1,063,819,276				1,063,819,276	3.14%
Blackrock: San Francisco	Passive (EAFE)				2,417,751,406			2,417,751,406	7.13%
	Large Cap Developed Non-US Equity Total							\$5,133,418,253	15.13%
	Large Cap Developed Policy							14.00%	
AQR: Greenwich	Active (EAFE SC)			178,232,590				178,232,590	0.53%
DFA: Santa Monica	Active (EAFE SC)			226,371,709				226,371,709	0.67%
Franklin Templeton: San Mateo	Active (EAFE SC)			415,906,369				415,906,369	1.23%
Blackrock: San Francisco	Passive (EAFE SC)				469,212,977			469,212,977	1.38%
	Small Cap Developed Non-US Equity Total							\$1,289,727,976	3.80%
	Small Cap Developed Policy							3.00%	
William Blair: Chicago	Active (EM)			461,762,584				461,762,584	1.36%
Eaton Vance: Boston	Active (EM)			513,528,765				513,528,765	1.51%
LSV: Chicago	Active (EM)			308,747,094				308,747,094	0.91%
Blackrock: San Francisco	Passive (EM)				687,901,238			687,901,238	2.03%
	Emerging Markets Equity Total							\$1,971,939,681	5.81%
	Emerging Markets Policy							6.00%	
	Non-US Equity Total							\$8,395,085,910	24.75%
	Non-US Equity Policy Range: 16% - 28%							23.00%	
	Private Equity Total							\$2,018,830,127	5.95%
	Private Equity Policy Range: 5% - 9%							7.00%	
	Opportunistic Equity							\$204,841,646	0.60%
	Opportunistic Equity Policy Range: 0% - 3%							0.00%	
	Equity Total							\$22,763,179,713	67.10%
	Total Equity Policy Range: 53% - 73%							63.00%	
Gresham: New York						849,432,638		849,432,638	2.50%
GTAA Managers (2)	Active GTAA					345,588,902		345,588,902	1.02%
	Commodities Total							\$1,195,021,540	3.52%
	Commodities Policy Range: 1% - 7%							4.00%	
GTAA Manager (1)	Active GTAA					54,828,894		54,828,894	0.16%
	Real Estate Total							\$2,074,445,895	6.11%
	Real Estate Policy Range: 6% - 10%							8.00%	
	Infrastructure Total							\$0	0.00%
	Infrastructure Policy Range: 0% - 3%							0.00%	
	Farmland & Timber Total					99,329,710		\$99,329,710	0.29%
	Farmland & Timber Policy Range: 0% - 3%							0.00%	
	Opportunistic Inflation Linked Total							\$0	0.00%
	Opportunistic I/L Policy Range: 0% - 3%							0.00%	
	Inflation Linked Total							\$3,368,797,146	9.93%
	Inflation Linked Policy Range: 7%-15%							12.00%	
	TOTAL Amounts	\$4,067,492,416	\$3,725,690,626	\$10,955,306,190	\$11,807,873,524	\$3,468,126,856	\$0	\$33,925,159,901	Total Fund
	TOTAL Percent	11.99%	10.98%	32.29%	34.81%	10.22%	0.00%		

Asset Class	Actual Portfolio	SAA Policy: Target (Range)	Rebalancing		Assumed - Adjusted		Policy Band check	Passive Min	Passive Actual
			Assumed Port	Adj Policy	% diff	\$ diff	Actual - Adj		
Cash	0.48%								
Core	11.27%	13%						50%	72%
High Yield	3.38%	5%							
US Fixed Income	14.64%	18% (8-28%)	14.90%	18.53% (9-29%)	-3.63%	-\$1,231,089,296	OK		
EM Debt	2.68%	4%		4.00%					
Opportunistic Debt	2.50%	0% (0-10%)	2.50%	0% (0-10%)	2.50%	\$849,822,562	OK		
Private Debt	2.66%	3%		3.00%					
Total Fixed Income	22.97%	25% (15-35%)	22.75%	25.53% (16-36%)	-2.78%	-\$943,190,532	OK		
Large Cap	26.94%	23%							
Mid Cap	4.58%	5%							
Small Cap	4.28%	5%							
US Equity	35.80%	33% (26-38%)	37.19%	34.86% (28-40%)	2.33%	\$789,046,100	OK	50%	65%
Developed Large Cap	15.13%	14%							
Developed Small Cap	3.80%	3%							
Emerging Markets	5.81%	6%							
Non-US Equity	24.75%	23% (16-28%)	24.33%	23.47% (16-28%)	0.86%	\$290,459,055	OK	30%	43%
Private Equity	5.95%	7% (5-9%)	5.95%	5.95% (4-8%)	0.00%	\$0	OK		
Opportunistic Equity	0.60%	0% (0-3%)	0.60%	0% (0-3%)	0.60%	\$204,841,646	OK		
Total Equity	67.10%	63% (53-70%)	68.07%	64.28% (54-71%)	3.79%	\$1,284,346,801	OK		
Commodities	3.52%	4% (1-7%)	2.94%	4.08% (1-7%)	-1.14%	-\$385,657,086	OK		
Real Estate	6.11%	8% (6-10%)	5.95%	6.11% (4-8%)	-0.16%	-\$54,828,894	OK		
Infrastructure	0.00%	0% (0-3%)	0.00%	0% (0-3%)	0.00%	\$0	OK		
Farmland & Timber	0.29%	0% (0-3%)	0.29%	0% (0-3%)	0.29%	\$99,329,710	OK		
Opportunistic I/L	0.00%	0% (0-3%)	0.00%	0% (0-3%)	0.00%	\$0	OK		
Total Inflation Linked	9.93%	12% (8-16%)	9.18%	10.19% (6-14%)	-1.01%	-\$341,156,270	OK		
Total	100.00%	100%	100.00%	100.00%	0.00%	\$0		30%	42%
							Internally Managed Portfolios:		
							\$9,710,130,008		
							29%		
Total GTAA									
Bridgewater \$3,086,948,160 9.1%									
Windham \$600,535,529 1.8%									
Total \$3,687,483,689 10.9%									
Policy 10% ±5% OK									
Opportunistic definitions: 1) Tactical in nature: Function of market dislocation AND 2a) Outside SAA benchmark, OR 2b) Within SAA benchmark but absolute return oriented									

(Notable changes from the previous month are highlighted in RED)

JUNE 2014

U.S. EQUITIES

Primary Market Metrics & Indicators:

1. Fundamentals: **POSITIVE**

- Major risks have receded and economic data suggests stable, sub-trend growth into 2014.
- Persistently high U.S. unemployment raise questions about a sustainable recovery, but no other tailspin issues have surfaced.
- At risk longer term due to stimulus measures; inflation remains generally subdued.
- There is considerable liquidity; Federal Reserve policy remains accommodative.
- Overall U.S. corporate profits are still growing, but with decelerating momentum as revenue trends are flat and pressures on profit margin expansion are surfacing.

2. Valuations: **NEUTRAL**

- P/E ratios (forward) **have inched lower recently, and though** less generous, and marginally less so for the mid- and smaller-sized companies, **they remain near historic averages:** S&P 500, **14.7x-16.3x**, S&P MID, **16.5x-19.3x**; S&P SC600, **16.6x-20.3x**.
- Historic P/Es imply advances of 5-10% for mid and small caps; 9-12% for S&P 500.
- Still rising earnings and low yields on 10-Yr Treasury notes combine for equity risk premiums that are favorably above the 4.0% long-range average for large caps, but market advances have trimmed those of mid- and small-caps to near 3.0%.

3. Sentiment: **POSITIVE**

- Lessened near-term equity market volatility (i.e., VIX Index) still reflects growing acceptance of risk-oriented assets.
- Asset flows that had gone to bonds and non-U.S. equities until 2013 continue to shift toward equities, though not necessarily to stock mutual funds

Commentary:

Throughout 1Q2014, IMD systematically pared back the allocation of U.S. stocks to address capital calls in the Plan's private equity and real estate asset classes. Proportionally more was withdrawn from the small cap and mid cap sub-classes. Strong price advances in 2013 outpaced earnings growth in these categories to the extent that their short-run risk premiums are less compelling than the larger-cap counterparts. This has also been reflected in the waning performance of small cap stocks *relative* to their large and mid- cap counterparts over 1Q2014. Small caps are off by about 1.5%; large caps and midcaps are up 4.6% and 3.8%, respectively.

Notwithstanding some opinions that prices of U.S. stocks are greatly overextended and thus due for a precipitous decline, data suggests otherwise. Valuations of domestic equities are full, but generally don't yet exceed long-term average valuations by much. Business conditions are constructive if not vibrant. Moreover, the equity markets have been resilient in spite of unsettling political events and have rebounded on shallow dips over 1H2014. Rather than setting up for an abrupt decline, in re-rating over the past year, the markets have pulled forward some return from future periods. This implies that future equity returns will still be

available however not to the magnitude as those experienced over the past year. This drives our “*NEUTRAL*” opinion on Valuations and “*POSITIVE*” opinions on Fundamentals and Sentiment.

CURRENT PORTFOLIO POSTURE: Over-Weight vs. SAA target

NON – U.S. EQUITIES

Primary Market Metrics & Indicators:

1. Fundamentals: **POSITIVE**
 - GDP growth in the Eurozone has begun to look less recessionary while that of the lesser-developed economies remains off its pace, but comparatively stronger.
 - Relatively inexpensive and available money supports a shift toward risk assets.
 - Monetary and economic policies are focused on controlling economic growth and fiscal stability.
2. Valuations: **POSITIVE**
 - Reasonable global valuations relative to U.S.; price-to-book values of 1.5x - 1.9x; P/Es of 13.5x – 15.2x on trend earnings.
 - Dividend yields are incrementally more favorable with most ranging from 1.5x to 1.6x that of the S&P500.
3. Sentiment: **POSITIVE**
 - Money flows continue toward both U.S. and non-U.S. equities; excepting the emerging economies markets, investors are less guarded and remain constructive on global risks.
 - Major non-U.S. markets performances are keeping pace with those of the U.S.

Commentary:

Global equities have begun responding positively to stabilizing economic momentum across major economies. Weaker than expected economic readings earlier in the year from China and the U.S. triggered corrections in the equities markets and a 50 basis points decline in U.S. 10-year bond yields. It is also attributable to a 5% relative underperformance of global cyclical equities versus more defensive stocks. U.S. ISM indices and their international PMI counterparts are rising; this often leads to better performance of equities and to an extent, markets have reacted. Other business conditions appear to be toughening tipping macro surprise indicators to positive. Adding to confidence is that PMI new orders globally are mid-range, so any slide back would be small and thus not transfer into major negative signal to the equities markets. Various measures of global monetary conditions such as policy rates, money supply growth and currency valuation continue to ease and the tapering policy of the U.S. Federal Reserve is not yet bringing about a broad tightening of monetary conditions.

Available liquidity is supportive for re-rating equity risk premiums. Equity risk premiums on international stocks of over 5% exceed those of the U.S. by about 100 basis points. Both imply ample compensation for investment, more so for the former. Falling yields among high-yield bonds and other compressions of credit spreads are further magnifying the relative advantage available in current equity risk premiums.

The Japanese equities markets continue to be challenged after responding well earlier in 2013. Japanese economic reform continues, but the markets are waiting for follow-on to the Abe policies. **They might be unduly bearish. The solid gains in personal consumption from the spurt of income growth are now appearing vulnerable to this new round of taxes. Most remain of the opinion that the Bank of Japan will need to ease additionally if hoped-for 2% annualized inflation targets are to be met. The bulk of the rise in inflation so far this year has come via higher import prices, which now are set to fall back. This suggests the BoJ will need to expand its program of bond purchases in 2H2014, and possibly further broadening of quantitative easing.**

Emerging markets (EM) overall, are enigmatic, **but of late are trading more favorably.** Having undergone two years of price correction, valuations for the most part remain attractive as compared to those of the developed economies. But an inherent “value trap” persists, as economic fundamentals continue to shift about for the larger countries, weaken for those with large external debt balances yet are surprisingly solid for many others. **Up until recently, capital was withdrawn indiscriminately from EM equity markets, despite select opportunities at the specific company level. Staff is watching this equilibration with interest of for opportunities to shift the allocation of the sub-class to above policy weight.**

IMD moved equities positioning in late 4Q2013 to a more neutral allocation to both the U.S. markets asset class, and to the Non-U.S. developed-economies equities class, and expects to increase the Non-U.S. exposure opportunistically over the course of 2014.

CURRENT PORTFOLIO POSTURE: Approx. Equal Weight vs. SAA target

FIXED INCOME

Primary Markets Metrics & Indicators:

1. Fundamentals: NEUTRAL

- Over the past few years, fundamentals in the fixed income markets have been dominated by an extremely accommodative monetary policy by the Federal Reserve. This has included massive, unprecedented bond buying programs of both treasury bonds and agency MBS securities known as “quantitative easing” that began in 2009 during the credit crisis and continues to this day. The Fed has now gradually begun to reduce its monthly purchases with a potential complete cessation of bond buying by the end of this year. In addition, the Fed has pledged to keep short-term rates near zero over an extended time depending on select economic targets and conditions. While these policies have kept interest rates artificially low, the potential cessation of bond buying activities along with an improving U.S. economic outlook could lead to higher interest rates over an intermediate to long-term time frame.
- In the near-term, long-term interest rates have fallen in 2014 in response to a combination of factors including some disappointing economic data, concerns about **global growth, some geopolitical uncertainty (ex. Ukraine), subdued inflation expectations and possible short covering by investors positioned for rising rates.**

2. Valuations: NEGATIVE

- The core fixed income market is relatively unattractive due to low overall yields as Treasury rates remain at low levels, investment-grade credit spreads are relatively tight and spreads on agency MBS are somewhat compressed due to aggressive buying by the Fed. Ultimately, we believe the

Fed will end its aggressive bond buying, and Treasury rates will rise over the intermediate-term from artificially low levels in the current market. That being said, core fixed income remains a safe haven in times of market turbulence and tends to perform well when risky assets such as equities sell off.

- With a benign outlook for corporate defaults and an overall demand in the market for yield, the valuation of high yield bonds has substantially compressed since mid-2012. As a result, the market has lost much of its return potential relative to prior years and will likely achieve low to mid-single-digit returns over the coming year.
- While emerging market debt denominated in local currencies offers attractive yields, **it comes with the added risk that emerging market currencies depreciate in value relative to the U.S. dollar resulting in poor returns as happened in 2013.** Of most concern is the potential for a sustained period of US dollar appreciation as has occurred periodically in the past (such as the 1990's) that could adversely affect the returns of EM local currency debt going forward.
- Private debt offers the most attractive opportunity in the fixed income markets with double-digit yields readily available for investors willing to accept illiquidity.
- Select areas of opportunistic debt such as distressed debt (both corporate and structured credit) and excess mortgage-servicing rights ("MSRs") also offer opportunities to potentially achieve double-digit returns.

3. Sentiment: NEUTRAL

- Following a multi-decade period of declining interest rates, IMD has modest concerns that investors sentiment is shifting away from fixed income. That being said, going forward, IMD believes demand will continue for income producing assets particularly those which offer a yield premium.

Commentary:

IMD remains underweight in its overall fixed income target due to the relatively low yields offered in the public fixed income markets as well as the risk of potentially higher treasury rates. ASRS is currently underweight in its SAAP target for core fixed income, high yield and emerging market debt. While core fixed income offers important defensive characteristics to potentially balance out the overall risks of the total fund portfolio, low levels of U.S. Treasuries and generally tight spreads in the investment-grade bond markets make it generally unattractive.

Furthermore, IMD remains concerned about the potential for higher Treasury rates and the impact on returns for core fixed income, should the Fed completely end its quantitative easing programs. In high yield, which historically is less sensitive to higher interest rates, spreads have compressed to levels which make potential returns much less compelling than in prior years. In emerging market debt, we are concerned about the currency risk embedded in the local currency bond markets of this asset class.

IMD sees the most attractive opportunities in fixed income in select credit markets -- particularly private debt and opportunistic debt -- where compelling yield and total return opportunities exist. Opportunistic debt includes a number of mandates such as distressed debt and structured asset-backed securities that are likely to provide very attractive returns. Since December, we have established two new multi-strategy mandates with strategic partners in opportunistic debt to take advantage of potential investment opportunities as European banks disgorge troubled fixed income assets.

CURRENT PORTFOLIO POSTURE: UNDERWEIGHT vs. SAA target

Primary Market Metrics & Indicators:

1. Fundamentals: **POSITIVE**

- While vacancy is declining across the board, excess inventory remains a problem in some sectors especially retail and suburban office.
- Our review of property market fundamentals leads to emphasize apartments, industrial properties, medical office buildings, senior housing self-storage, and student housing in our current investing efforts for demographic and macro policy reasons.
- There are relatively few foreclosures on high quality property, but there continues to be pressures on refinancing of legacy leverage structures and we participate in those transactions through several of our manager relationships.
- Single family housing has turned the corner with effects rippling through the economy. Recovery in construction and NOI has been led by apartments to date.

2. Valuations: **NEUTRAL**

- On a total market basis, valuations have recovered from recession lows but are still about 15% below prior peak. However, coastal markets have rebounded more strongly than interior markets.
- High quality coastal market properties are trading at historic low cap rates; however these cap rates still reflect approximately a normal spread to treasury. The financing market for assets of this quality has recovered and supports these valuations by providing fixed rate financing that mitigates the risk of later cap rate expansion. International investors looking for safe assets have contributed to demand in the coastal markets.
- Recent increases in treasury rates do not appear to have affected commercial real estate valuations. Many observers believe that ~100bps of rate increase was already discounted into cap rates.
- REITs are trading at a **6%** premium to NAV with an average dividend yield of **3.8%**. This reflects a **120bps** spread to the 10 year treasury, which is **a bit higher than** the historical average of 108bps.

3. Sentiment: **POSITIVE**

- U.S. focused real estate fund raising rose 13% to \$76 billion per year. U.S. focused dry powder has trended down to approximately \$80 billion.
- Global commercial real estate transaction volume peaked at around \$700 billion in 2007, but dropped to about a third of that during the global financial crisis. Current volume of approximately \$550 billion is double the recession trough, but still well below the peak.
- Debt availability has improved considerably since the depth of the recession, but is still tight by historic standards for all but the most desirable properties. Construction financing remains a considerable challenge, even for well justified projects.

Commentary:

IMD continues to implement its separate account real estate strategic manager program. ASRS adopted an updated pacing and implementation plan in December, calling for \$500 million in new commitments in 2014 including \$350M allocated to niche and tactical opportunities.

CURRENT PORTFOLIO POSTURE: UNDERWEIGHT * vs. SAA target *in program funding/build-out phase

Primary Market Metrics & Indicators:

1. Fundamentals: **POSITIVE**

- The U.S. economy continues to show steady improvement.
 - ◊ The energy sector is dynamic with massive new investment in “tight oil” and related infrastructure and services, with supply improvements also resulting in improved energy efficiency particularly of benefit to manufacturers.
 - ◊ Healthcare is being reshaped to implement the requirements of “Obamacare”
 - ◊ The U.S. continues to be a global leader in technology innovation.
- Europe continues to struggle in recovering from the financial crisis although recent data suggests a pickup in economic activity. Its problems are exacerbated by a unified currency without unified fiscal policy and it is expected to experience a very slow recovery.
- Emerging markets have slowed while the largest emerging markets are transitioning to focus on domestic consumption.

2. Valuations: **NEUTRAL**

- Purchase price multiples in 2013 (through Q3) were 8.4x, roughly flat from 2012 levels and below 2007 peak valuations. Over the course of 2013, large deal multiples rose from 10x to 11x while small deals fell from 4.0x to 2.5x.
- The leveraged loan and high yield debt markets were active in 2013 reaching multi-year highs for net issuance, albeit principally for refinancing. Single B high yield spreads have recently dipped below 350bps.
- Total leverage in 2013 (through Q3) ticked up to 5.3x from 5.1x in 2012, although still down ~0.8x turn from the 2007 peak.

3. Sentiment: **NEUTRAL**

- Globally, fund raising was up from \$381B (1,035 funds) closed 2012 to \$454B (873 funds) closed in 2013. In aggregate, there are 2,000+ funds currently seeking ~\$800B. In North America fund raising was up from \$201B (475 funds) closed 2012 to \$288B (487 funds) closed in 2013.
- Dry powder of nearly \$1.0 trillion globally in all categories rose from \$941 at the end of 2012.
- In 2013, PE deal flow fell 10% globally while the aggregate value of deals was up 10% in N. America, down 6% in Europe, and down 28% in Asia.
- In 2013 there were 1,300+ exits valued at \$300B, the highest count on record and matching the value of 2011. The average exit size of \$500M was the same as 2012.
- The IPO market continued to trend up in 2013 (particularly in H1) as equity markets rallied.

Commentary:

Areas of emphasis are U.S middle market buyout with focus on managers with strong operational capability. Vertical strategies in energy, healthcare and technology are under consideration. IMD will reduce emphasis on large buyout strategies though larger managers with specialized deal flow remain of interest. IMD will continue to monitor Europe for a favorable reentry point. IMD's pacing plan calls for \$550M in commitments for 2014, with an additional \$50M carried over from 2013.

CURRENT PORTFOLIO POSTURE: UNDERWEIGHT * vs. SAA target*in program funding/build-out phase

Primary Market Metrics & Indicators:

1. Fundamentals: **NEGATIVE**

- The Fed continued to taper its QE program by \$10B per month and reiterated that inflation continues to run below the FOMC's long-term objective.
- Recent data indicates the US economy has momentum, although the winter weather has impeded progress. Excluding exogenous factors, most commodity sectors appear well supplied, particularly for the current global slow growth environment.
- Ags planting season has gone well as 95% of corn is planted with 76% of the crop rated good/excellent, both metrics in-line with or ahead of last year and a similar story for soybeans. Energy markets reflect the continued growth in US production, although geopolitical events in Ukraine/Russia have kept prices up. Metals have been mixed as precious metals have benefitted from a flight to safety while industrial metals still exhibit weak demand.

2. Valuations: **NEUTRAL**

- After being range bound from 245 – 260 in 2H 2013, the index has rose to 270 in Q1 2014 and has remained flat during Q2.
- Year-to-date, coffee, nickel, and hogs have been the leaders with copper and lead being the biggest laggards.
- The index on a year-to-date basis is up 6.6%, largely on cold winter weather and geopolitical concerns (ags & energy) and flight to safety (precious metals).

3. Sentiment: **NEUTRAL**

- The improvement in macroeconomic sentiment in the U.S. year-to-date has softened while EM continues to exhibit weakness and resulted in modest inflows into commodities.
- Exogenous shocks have pushed up specific commodities in energy and ags although demand has largely not driven prices.
- Looking across the individual commodities, most remain well supplied, which has been reflected in prices as inflationary fears have abated.

Commentary:

IMD maintained a tactical underweight position relative to the SAAP during 2013 and into 2014 after recognizing the potential effects of Fed tapering and Chinese transition. IMD recognizes that Fed tapering will be data dependent but the Fed has been clear about its intention to reduce stimulus. China's transition to a more consumer oriented economy will be gradual but the era of infrastructure build-out which fueled a portion of the demand for commodities is abating.

IMD will closely monitor the growth and inflation dynamics globally with improving economic conditions and inflationary pressures serving as a catalyst which may initiate a neutral position.

CURRENT PORTFOLIO POSTURE: UNDERWEIGHT vs. SAA target

OPPORTUNISTIC INVESTMENTS

IMD continues to monitor and assess co-investment flow from real estate, private equity and debt managers for select opportunistic equity investments in idiosyncratic opportunities with favorable capital market dynamics. Opportunistic investments are tactical in nature AND are outside ASRS SAAP benchmarks or are absolute return oriented.

CURRENT PORTFOLIO POSTURE: APPROX 3.2% of ASRS TOTAL MARKET VALUE

GLOSSARY

Commentary: Provides verbiage on 1) the current asset class market environment and possible changes to this environment and 2) ASRS asset class portfolio positioning relative to ASRS SAA policy, its rationale for positioning and anticipated changes which may occur in such positioning.

Current Portfolio Posture: Indicates ASRS asset class position relative to its asset allocation policy weight. “Overweight” indicates an asset class weight is greater than its policy target, “Neutral” indicates an equal weight and “Underweight” indicates a lesser weight than its policy target.

Investment House Views: Synthesizes IMD’s current and forward-looking investment perspectives and tactical positioning in asset classes and investment strategies in which the ASRS invests.

Primary Market Metrics and Indicators: Broadly-defined metrics (Fundamentals, Valuations, and Sentiments) applied universally to ASRS asset classes and used collectively to evaluate existing market conditions. Indicators (“Positive,” “Neutral” and “Negative”) reflect IMD’s existing views of these metrics and, in addition to other factors, generally determine the basis for the existing (and possible future changes) to ASRS aggregate portfolio position relative to or within ASRS SAA policy targets.

ASRS INVESTMENT MEETINGS										
2014		Asset Class Committees					Board Committee		Grand Totals	
		Private Market Committee (PRIFMC)			Public Market Committee (PUBMC)		Investment Committee (IC)			
Quarter	Month	Dates		Total	Dates	Total	Dates	Total		
1 st	January	1/15	1/31	2	1/31	1	1/31	1	9	
	February	2/21		1			2/20	2/24		2
	March	3/24		1	3/27	1				
2 nd	April	04/22		1	04/17	1	04/21	1	6	
	May	05/12	05/27	3						
		05/28								
3 rd	June									
	July									
	August									
4 th	Septemb er									
	October									
	Novemb er									
Totals	Decembe r								15	
				8		3		4		

04/22/14:

➤ **Private Equity Program**

- The Committee approved a \$40 million commitment to Lovell Minnick IV, a smaller buyout firm focused on the financial services industry. ASRS analysis shows their performance to generate positive PME, particularly when compared to financial services benchmark.

05/12/14

➤ **Real Estate Program**

- The Committee approved a \$100 million investment to a separately managed account to invest in residential land pursuant to a strategy previously approved to the Committee. Legal negotiations are pending.

05/27/14

➤ **Private Equity Program**

- The Committee approved a \$40 million commitment to a small buyout GP. The ASRS has previously invested with the GP thorough their previous fund. Legal negotiations are pending.
- The Committee approved a \$25 million commitment to a venture capital fund. ASRS has previously invested with this GP; this GP is one of a handful of the highest performing Silicon Valley venture capital firms. Legal negotiations are pending.

05/28/14

➤ **Niche and Tactical Real Estate Investments**

- The Committee was presented with the following investments for preliminary review and approved additional due diligence for each investment:
 - Related companies energy fields housing
 - Cornerstone/LAZ parking assets
 - L3 Capital urban retail
 - Buchanan Street growth market office
 - Hines/Pearlmark San Mate office project

04/17/14:

➤ **Public Fixed Income Program**

- The Committee approved the termination of PIMCO core fixed income mandate of approximately \$300 million due to myriad of factors that hindered the fund's performance. Funds will remain in fixed income and will be redeployed at the discretion of the CIO.
- The Committee approved the termination of the Shenkman high yield mandate of approximately \$170 million due to performance considerations and decided to redeploy the funds to private opportunistic debt mandates with expected higher returns.

TACTICAL PORTFOLIO POSITIONING

Per approval by the Public Markets Committee, IMD released three (3) non-US equity managers Aberdeen, Hansberger Global Investors and Walter Scott (due to performance issues) and replaced them with three (3) non-US equity managers whose strategy and investment process are expected to provide excess returns and a better in aggregation risk profile within the ASRS non-US equity asset. BlackRock will assist in transitioning the portfolios; completion is expected to occur before the end of June.

Due to concerns about personnel and processes, an active core fixed income mandate with PIMCO with approximately \$300 million of assets was terminated and transitioned into Blackrock US Debt Index Fund, a passive strategy.

Due to near all-time tight spread in high yield and House Views to further underweight high yield relative to policy, Shenkman with approximately \$170 million of assets was defunded. The funds were used for capital calls in private and opportunistic debt.

The CIO will discuss this tactical portfolio repositioning in more detail at the IC meeting.

Note: tactical portfolio positioning is captured in the ASRS Asset Allocation report; the performance results of tactical positioning (vs. policy targets) are reflected in the ASRS Quarterly Total Fund Performance Attribution Analysis.

IMD (INVESTMENT MANAGEMENT DIVISION) ACTIVITIES, PROJECTS AND RESEARCH INITIATIVES

- The Director and CIO are evaluating methodologies and the structural frameworks for a new asset allocation study which is expected to be completed in calendar year 2014. Separately but related, IMD continues to explore various attribution methodologies which enhance ASRS measuring the effects of internal and external TAA decisions.
- Implementation of the redesigned ASRS securities lending program is pending final contract negotiations with State Street. The program will include two parts: 'base lending' to initiate a conservative strategic lending program and 'opportunistic lending' to profit from relatively large or one-off individual lending transactions, the latter of which will be evaluated and approved on a case-by-case basis by the Director and CIO. The ASRS is currently investigating two opportunistic short term loans of ASRS treasury holdings (approx. \$1 billion in aggregate) which is expected to generate net revenue to the ASRS of approximately \$250K per month.
- IMD is evaluating enhanced cash management options intended to mitigate potential cash drag on total fund returns and to more efficiently manage monthly internal and external cash flow requirements and their affect the public fixed and equity portfolios. Paramount is to ensure that excess cash balances

maintain exposure to equity or fixed income markets while providing ample liquidity to meet pension funding needs and minimizing associated transaction costs. Implementation is expected to occur in Q3-14.

- An IC/IMD Investment Roundtable is scheduled for August 18 which will focus on the following interrelated topics: Equity Risk Factors, Smart Beta Constructs and New/Alternative Beta/Alpha Investment Strategies. Participation will include both internal and external subject matter experts who will provide their perspectives on the agenda topics.
- As a standard course of business, IMD meets with both incumbent and potential investment managers to discuss macro-economies and capital markets as well as providing a means to review new initiatives, relationships and new strategy offerings. Since the last IC meeting, IMD has met via conference call or in-person with a total of 95 investment managers: Private markets (RE, PE, Debt) – 61 and Public markets (Equity and Debt) – 34.
- IMD internally manages 7 public equities and fixed income portfolios which had an aggregate market value of over \$9.8 billion or 30% of Total Fund. For the 1-year ending May 31, 3 of 7 met or exceeded their benchmarks, and 7 of 7 portfolios met or exceeded their benchmarks on an inception-to-date basis. For the former noted period, portfolios' underperformance were minor, within TE parameters and mostly applicable to various settlement and operational issues in calendar year 2014.